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10/700,483	11/05/2003	Akio Aoyama	NEC03P166-RIa	7753
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/700,483

Applicant(s)

AOYAMA, AKIO

Examiner

FRED A. CASCA

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 20-26, 39-45, 49-57, 62, 63, 68, 69 and 72-89 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

- 5) ☐ Claim(s) _____ is/are allowed.

- 6) ☒ Claim(s) 1-7, 20-26, 39-45, 49-57, 62, 63, 68, 69 and 72-89 is/are rejected.

- 7) ☐ Claim(s) _____ is/are objected to.

- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This action is in response to applicant's amendment filed on November 03, 2010. Claims 1-7, 20-26, 39-45, 49-57, 62-63, 68-69, 72-89 are still pending in the present application. **This Action is made FINAL**

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 20-26, 39-45, 62-63, 68-69 and 74-87 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Independent claim 20 has been amended to contain new matter. The phrase "as data for developing a service map of said radio communication system, each said predetermined criterion providing data for a different service map" added to independent claim 20 has not been described in the specification.

Further, independent claim 39 has been amended to contain new matter. The phrase "each of criterion of said predetermined criteria having been predefined as a condition related to

one of maintaining or improving service within a service area of said radio communication system” added to independent claim 39 has not been described in the specification.

Further, new independent claims 80 and 81 contain new matter. The phrase “wherein the measurement information includes information relating to at least one of a reception quality and an intensity of a radio signal and information relating to a location of the mobile radio terminal” in each of claim 80 and 81 has not been described in the specification.

Further, the contents of new dependent claims 74-79, 84, 85, 86 and 87 have not been described in the specification.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2, 5-7, 39-40, 43-45, 49,50, 53-57, 62, 63, 68-73 and 83 are rejected under 35 U.S.C. 103(a) as being unpatentable over Veerasamy et al (US 2004/0203855 A1) in view of Ma et al (US 2003/0148765 A1) and further in view of Admitted Art, particularly, Specification, page 2, line 13-page 3, line 7 (hereinafter AA).

Referring to claim 1, Veerasamy discloses a method of collecting information used with an information collecting server in a radio communication system connected to at least one

mobile radio terminal for performing user communications (abstract and Par. 7, Fig. 1, "server 195"), comprising:

in said mobile radio terminal, monitoring a communication status of a communication connection using a traffic channel, wherein said communication status corresponds to whether or not the mobile radio terminal has an existing communication connection using the traffic channel, which satisfies predetermined criteria (Fig. 1 and par. 31-32, 33-35, 61-63, particularly, par. 33, line 9-12 and par. 34, lines 2-3, "MS 113 ... in communication with BS 102". "detects RF holes ... relays GPS position", note that the mobile terminal reports call drop, thus it monitors its communication status. Further note that a communication status changes either due to a call drop in an RF hole for loss of signal or due to a handoff because of decreased signal strength. Thus, the criteria is signal loss (due to RF hole) or decreased signal strength (handoff)),

detecting as a trigger when a change of said communication status has satisfied a predetermined condition of one of said predetermined criteria (Fig. 1 and par. 31-32, 33-35, 61-63, "detect RF holes," "call dropped," note that the call drop is the predetermined condition); said predetermined condition being predefined as useful information within a service area of aid radio communication system (Fig. 1 and par. 31-32, 33-35, 61-63, note that the detecting of RF holes and call drops is used in RF mapping)

acquiring a coordinate position of said mobile radio terminal and sending measured information including coordinate position to said information collecting server ((Par. 35 and 36, "relays the GPS position ... to RF coverage server").

Veerasamy does not specifically disclose acquiring a reception status of a radio signal when trigger is detected and sending the reception status to the collecting server in the format claimed.

Ma discloses acquiring a reception status of a radio signal when a trigger is detected and sending the reception status to the collecting server (fig. 4 and Par. 36, lines 1-4).

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the method of Veerasamy in the format claimed, for the purpose of providing an efficient communication system.

Veerasamy does not specifically disclose the information is used and related to at least one adjustment.

However, Admitted Art (AA) discloses this feature (Specification, page 2, line 13-page 3, line 7, "maintenance and adjustments").

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the combination in the format claimed, for the purpose of providing an efficient communication system.

Referring to claim 2, combination of Veerasamy/Ma/AA discloses the method according to claim 1, and further disclose predetermined condition comprises an occurrence of a forced disconnection of the user communication (Veerasamy, Par. 34-35, "holes").

Referring to claim 5, combination of Veerasamy/Ma/AA discloses the method according to claim 1.

The combination does not specifically disclose the predetermined condition is a call which is made. The combination discloses that the predetermined condition is handover of a call from a first base station to another base station (Veerasamy, Par. 33).

It would have been an obvious design choice to modify the invention of Veerasamy/Ma by limiting the predetermined condition to a call initiation condition since the applicant has not disclosed that having the predetermined condition being call made solves any stated problems or is for any particular purpose and it appears that handover being set as a precondition would perform equally well as the predetermined condition since a handover inherently comprises a call set up with the target base station.

Referring to claim 6, combination of Veerasamy/Ma/AA discloses the method according to claim 1 and further discloses in said information collecting server, sending value information indicative of a value given for said measured information, which is provided to said mobile radio terminal when said measured information is received; and in said mobile radio terminal, displaying the value indicated by said value information when said value information is received (Veerasamy, par. 55-58 and 71, and Ma fig. 1-4).

Referring to claim 7, combination of Veerasamy/Ma/AA discloses the method according to claim 1, and further disclose the radio communication system comprises a CDMA radio communication system (Veerasamy, par. 24, "CDMA").

Referring to claim 39, Veerasamy discloses a mobile radio terminal for sending information used for adjustments in a radio communication system for performing user

communications to an information collecting server (abstract and Par. 7, Fig. 1, "server 195"), comprising:

a communication status acquisition unit that acquires a communication status of a communication connection using a traffic channel, wherein said communication status corresponds to whether or not the mobile radio terminal has an existing communication connection using the traffic channel, which satisfies predetermined criteria (Fig. 1 and par. 31-32, 33-35, 61-63, particularly, par. 33, line 9-12 and par. 34, lines 2-3, "MS 113 ... in communication with BS 102", "detects RF holes ... relays GPS position", note that the mobile terminal reports call drop, thus it monitors its communication status. Further note that a communication status changes either due to a call drop in an RF hole for loss of signal or due to a handoff because of decreased signal strength. Thus, the criteria is signal loss (due to RF hole) or decreased signal strength (handoff)) ; each criterion of said predetermined criteria having been predefined as a condition related to one of maintaining or improving service within a service area of said radio communication system (Par. 35, 50, 51, and 36, and 61);

a positional information acquisition unit that acquires a coordinate position of the mobile radio terminal (Par. 35 and 36, 61 and Figure 4, "relays the GPS position ... to RF coverage server"); and a control unit, triggerable when a change of said communication status acquired by said communication status acquisition unit has satisfied a predetermined condition, that instructs said reception status acquisition unit to instruct said positional information acquisition unit to acquire said coordinate position (Par. 35 and 36, 61 and Figure 4, "relays the GPS position ... to RF coverage server"), and, when said reception status and said coordinate position are acquired, sending information

including said coordinate position to said information collecting server (Par. 35 and 36, 61 and Figure 4, “relays the GPS position ... to RF coverage server”).

Veerasamy does not specifically disclose a reception status acquisition unit that acquires a reception status of a radio signal; and instructs said reception status acquisition unit to acquire said reception status and sending said reception status, as claimed.

Ma discloses a reception status acquisition unit that acquires a reception status of a radio signal; and instructs said reception status acquisition unit to acquire said reception status and sending said reception status (fig. 4 and Par. 36, lines 1-4).

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the method of Veerasamy in the format claimed, for the purpose of providing an efficient communication system.

Veerasamy does not specifically disclose the information is used determining adjustments as claimed.

However, Admitted Art (AA) discloses this feature (Specification, page 2, line 13-page 3, line 7, “maintenance and adjustments”).

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the combination in the format claimed, for the purpose of providing an efficient communication system.

Claims 40, and 45 recite features analogous to the features of claims 2 and 7. Thus, the combination of Veerasamy/Ma discloses all elements of claims 40 and 47.

Claims 49 recites features analogous to the features of claim 39. Thus, the combination of Veerasamy/Ma/AA discloses all elements of claim 49.

Claims 50 and 55 recite features analogous to the features of claims 2 and 7. Thus, the combination of Veerasamy/Ma/AA discloses all elements of claims 50 and 55.

Claims 44 and 54 recite features analogous to the features of claim 6. Thus, they are rejected for the same reason as set forth above.

Claims 43 and 53 recite features analogous to the features of claim 5 (as rejected above). Thus, they are rejected for the same reason as set forth above.

Referring to claim 56, combination of Veerasamy/Ma/AA discloses the method according to claim 1, and inherently disclose acquiring a reception status further includes acquiring at least one of a received signal quality and a received signal intensity of a common channel (par. 24 and 33).

Referring to claim 57, combination of Veerasamy/Ma discloses the method according to claim 1, and further disclose acquiring said coordinate position information further includes acquiring coordinate information of said mobile radio terminal by using Global Positioning System (Par. 36, "GPS").

Claims 62, 64, 66 and 70 recite features analogous to the features of claim 56. Thus, Thus, they are rejected for the same reason as set forth above.

Claims 59, 63, 69, 71 and 73 recite features analogous to the features of claim 57. Thus, Thus, they are rejected for the same reason as set forth above.

Referring to claim 83, combination of Veerasamy/Ma/AA discloses the method according 1, and further discloses wherein said sent information further includes time information (Veerasamy, Par. 33-36).

5. Claims 20, 21, 25, 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Veerasamy et al (US 2004/0203855 A1) in view of Ma et al (US 2003/0148765 A1).

Referring to claim 20, Veerasamy discloses a system for collecting information used for adjustments in a radio communication system for performing user communication (abstract and Par. 7, Fig. 1, "server 195"), comprising: at least one mobile radio terminal that monitors a communication status of a communication connection using a traffic channel, wherein said communication status corresponds to whether or not the mobile radio terminal has an existing communication connection using the traffic channel, which satisfies predetermined criteria (Fig. 1 and par. 31-32, 33-35, 61-63, particularly, par. 33, line 9-12 and par. 34, lines 2-3, "MS 113 ... in communication with BS 102", "detects RF holes ... relays GPS position", note that the mobile terminal reports call drop, thus it monitors its communication status. Further note that a communication status changes either due to a call drop in an RF hole for loss of signal or due to a handoff because of decreased signal strength. Thus, the criteria is signal loss (due to RF hole) or decreased signal strength (handoff)), and if a trigger is detected when a change of said communication status has satisfied a predetermined condition (par. 34, 61, "detect RF holes," "call dropped," note that the call drop is the predetermined condition), acquires a coordinate position of the mobile radio terminal, and sends information including said coordinate position (Par. 35 and 36, 61 and Figure 4, "relays the GPS position ... to RF coverage server"); and an information collecting server that receives said information from said mobile radio terminal

(figures 1-4 and Par. 61 and 33-35), wherein the information which has been received is recorded as collected information as data for developing a service map of said radio communication system, each said predetermined criterion providing data for different service map (Par. 35, 50, 51, and 36, and 61).

Veerasamy does not specifically disclose acquiring a reception status of a radio signal when trigger is detected and sending the reception status to the collecting server in the format claimed.

Ma discloses acquiring a reception status of a radio signal when a trigger is detected and sending the reception status to the collecting server (fig. 4 and Par. 36, lines 1-4).

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the method of Veerasamy in the format claimed, for the purpose of providing an efficient communication system.

Claim 25 recite features analogous to the features of claim 6. Thus, it is rejected for the same reason as set forth above.

Claims 24 recites features analogous to the features of claim 5 (as rejected above). Thus, it is rejected for the same reason as set forth above.

Claims 21 and 26 recite features analogous to the features of claims 2 and 7. Thus, the combination of Veerasamy/Ma discloses all elements of claims 21 and 26.

6. Claims 3-4, 22-23, 41-42 and 51-52, 74-79 and 84-89 are rejected under 35 U.S.C. 103(a) as being unpatentable over Veerasamy et al (US 2004/0203855 A1) in view of Ma et al (US

2003/0148765 A1), further in view of Admitted Art, particularly, Specification, page 2, line 13- page 3, line 7 (hereinafter AA) and further in view of well known prior art (MPEP 2144.03).

Referring to claim 3, combination of Veerasamy/Ma/AA discloses the method according to claim 1.

Veerasamy does not specifically disclose the predetermined condition comprises an occurrence of a handover failure.

The examiner takes official notice of the fact that handover failure is a well known reason for call drops.

It would have been obvious to one of the ordinary skill in the art at the time of invention of modify the combination in the format claimed by modifying the call loss of Veerasamy by handover failure, for the purpose determining locations that handover failure occurs and thus reducing handover failures.

Referring to claim 4, combination of Veerasamy/Ma/AA discloses the method according to claim 1.

Veerasamy does not specifically disclose predetermined condition comprises the lowering of a throughput of said user communication below a predetermined threshold value.

The examiner takes official notice of the fact that setting measurement of throughput e.g., throughput compared to a threshold is well known in the art.

It would have been obvious to one of the ordinary skill in the art to modify the combination in the format claimed, for the purpose of maintaining quality communication sessions and thus providing an efficient communication system.

Claims 14-15 recite features analogous to the features of claims 3-4. Thus, the combination of Veerasamy/Ma and well known art discloses all elements of claims 14-15.

Claims 22-23 recite features analogous to the features of claims 3-4. Thus, the combination of Veerasamy/Ma and well known art discloses all elements of claims 22-23.

Claims 33-34 recite features analogous to the features of claims 3-4. Thus, the combination of Veerasamy/Ma and well known art discloses all elements of claims 33-34.

Claims 41-42 recite features analogous to the features of claims 3-4. Thus, the combination of Veerasamy/Ma and well known art discloses all elements of claims 41-42.

Claims 51-52 recite features analogous to the features of claims 3-4. Thus, the combination of Veerasamy/Ma and well known art discloses all elements of claims 51-52.

Referring to claim 74, 75 and 76 combination of Veerasamy/Ma/AA discloses the method according to claim 1.

The combination is silent on wherein said sending information to said information collecting server occurs immediately upon said trigger, said predetermined condition having been preset to permit said information to be sent to said information collecting server without said mobile radio terminal having first lost said existing communication connection (as claimed in claim 74), wherein said trigger results from a condition causing a loss of said existing communication connection and said sending information to said information collecting server occurs immediately upon regaining a new communication connection (as claimed in claim 75) and wherein said predetermined criteria comprises a plurality of conditions causing triggers for said sending information to said information collecting server (as claimed in claim 76).

However, the examiner takes official notice of the fact that the above features of claims 74, 75 and 76 are well known in the art.

It would have been obvious to one of the ordinary skill in the art at the time of invention of modify the combination in the format claimed for the purpose of providing an efficient communication system.

Referring to claim 77, combination of Veerasamy/Ma/AA discloses the method according to claim 76.

The combination does not disclose wherein each said condition permits a different mapping condition for said radio communication system, thereby permitting a plurality of maps for an area serviced by said radio communication system to be developed.

The examiner takes official notice of the fact the features of claim 77 are well known in the art.

It would have been obvious to one of the ordinary skill in the art at the time of invention of modify the combination in the format claimed for the purpose of providing an efficient communication system.

Referring to claim 78, combination of Veerasamy/Ma/AA discloses the method according to claim 77.

The combination does not disclose retrieving data stored in said information collecting server; and

using said retrieved data to develop at least one map for said area serviced by said radio communication system.

The examiner takes official notice of the fact these features are well known in the art.

It would have been obvious to one of the ordinary skill in the art at the time of invention of modify the combination in the format claimed for the purpose of providing an efficient communication system.

Referring to claim 79, combination of Veerasamy/Ma/AA discloses the method according to claim 76.

The combination does not specifically disclose said plurality of conditions comprising at least two of a preset condition for: a received signal power vs. interference power ratio per chip (E_c/I_o) indicative of a received signal quality of a common pilot channel; a received signal intensity in a common pilot channel; an event of a forced shut down of a communication; an indication that said mobile radio terminal is unable to make an outgoing call; an indication of a handover failure; an indication of a level of a communication throughput; and an indication of a start of a call.

The examiner takes official notice of the fact these features are well known in the art.

It would have been obvious to one of the ordinary skill in the art at the time of invention of modify the combination in the format claimed for the purpose of providing an efficient communication system.

Referring to claim 79, combination of Veerasamy/Ma/AA discloses the method according to claim 76.

The combination does not specifically disclose said plurality of conditions comprising at least two of a preset condition for a received signal power vs. interference power ratio per chip (E_c/I_o) indicative of a received signal quality of a common pilot channel; a received signal intensity in a common pilot channel; an event of a forced shut down of a communication; an indication that

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said mobile radio terminal is unable to make an outgoing call; an indication of a handover failure; an indication of a level of a communication throughput; and an indication of a start of a call.

The examiner takes official notice of the fact the features of claim 79 are well known in the art.

It would have been obvious to one of the ordinary skill in the art at the time of invention of modify the combination in the format claimed for the purpose of providing an efficient communication system.

Referring to claim 84, combination of Veerasamy/Ma/AA discloses the method according to claim 1.

The combination does not specifically discloses said sending information occurs only from users who have provided consent for such information sending such that dedicated software has been installed only on mobile radio terminals of consenting users.

The examiner takes official notice of the fact the features of claim 84 are well known in the art. It would have been obvious to one of the ordinary skill in the art at the time of invention of modify the combination in the format claimed for the purpose of providing an efficient communication system.

Referring to claim 85, combination of Veerasamy/Ma/AA discloses the method according to claim 84.

The combination does not specifically transmitting valuable points as consideration to users sending information to said information collecting server.

The examiner takes official notice of the fact these features are well known in the art.

It would have been obvious to one of the ordinary skill in the art at the time of invention of modify the combination in the format claimed for the purpose of providing an efficient communication system.

Referring to claim 86, combination of Veerasamy/Ma/AA discloses the method according to claim 1.

The combination does not specifically the information collecting server transmits said trigger so that a plurality of mobile radio terminals simultaneously start measuring information and sending the measured information to the information collecting sever.

The examiner takes official notice of the fact these features are well known in the art.

It would have been obvious to one of the ordinary skill in the art at the time of invention of modify the combination in the format claimed for the purpose of providing an efficient communication system.

Referring to claim 87, combination of Veerasamy/Ma/AA discloses the method according to claim 1.

The combination does not specifically the predetermined criteria include at least one of signal loss and a lowering of said signal reception.

The examiner takes official notice of the fact the features of claim 87 are well known in the art.

It would have been obvious to one of the ordinary skill in the art at the time of invention of modify the combination in the format claimed for the purpose of providing an efficient communication system.

Referring to claim 88, combination of Veerasamy/Ma/AA discloses the method according to claim 1.

The combination does not specifically predetermined criteria allow for a mapping of said service area of said system.

The examiner takes official notice of the fact the features of claim 87 are well known in the art. It would have been obvious to one of the ordinary skill in the art at the time of invention of modify the combination in the format claimed for the purpose of providing an efficient communication system.

Referring to claim 89, combination of Veerasamy/Ma/AA discloses the method according to claim 1.

The combination does not specifically the predetermined criteria allow for other than a handoff operation for the mobile radio terminal.

The examiner takes official notice of the fact the features of claim 87 are well known in the art. It would have been obvious to one of the ordinary skill in the art at the time of invention of modify the combination in the format claimed for the purpose of providing an efficient communication system.

7. Claims 80-81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Veerasamy et al (US 2004/0203855 A1) in view of Mile's et al (US 6,628,642).

Referring to claim 80, Veerasamy discloses a method of reporting measurement information measured by a mobile radio terminal (abstract and Par. 7, Fig. 1, "server 195"), said method comprising:

monitoring a communication status of the mobile radio terminal (Fig. 1 and par. 31-32, 33-35, 61-63, particularly, par. 33, line 9-12 and par. 34, lines 2-3, "MS 113 ... in communication with BS 102", "detects RF holes ... relays GPS position"), detecting a deterioration of the communication status (Fig. 1 and par. 31-32, 33-35, 61-63, "detect RF holes," "call dropped"); and reporting measurement information corresponding to the detected deterioration (Fig. 1 and par. 31-32, 33-35, 61-63), wherein the measurement information includes information relating to at least one of of a radio signal and information relating to a location of the mobile radio terminal (par. 31-35, "location").

Veerasamy does not specifically disclose that the measurement information includes information relating to at least one of a reception quality and an intensity.

However, Mil'n discloses this feature(Col. 1, lines 51-67, "mobile station ... will typically ... to measure and report signal strength").

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the method of Veerasamy in the format claimed, for the purpose of providing an efficient communication system.

Claim 81 recites features analogous to the features of claim 80 (as rejected above). Thus, it is rejected for the same reason as set forth above.

8. Claims 82 is rejected under 35 U.S.C. 103(a) as being unpatentable over Veerasamy et al (US 2004/0203855 A1) in view of Mile's et al (US 6,628,642) and further in view of well known art (MPEP 2144.03).

Referring to claim 82, the combo of Veerasamy/Mile'n discloses the mobile radio terminal of claim 81.

The combo is silent on wherein said reception quality and said intensity of the radio signal comprises a received signal quality and a received signal intensity of a common pilot channel.

The examiner takes official notice of the fact that reception quality and intensity of the radio signal comprising a received signal quality and a received signal intensity of a common pilot channel. is well known in the art.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to modify the above combination as claimed for the purpose of complying with conventional radio communication measuring techniques and thus providing an efficient communication system.

Response to Arguments

9. Applicant's arguments with respect to the rejection of claims 1-7, 20-26, 39-45, 49-57, 62-63, 68-69, 72-89 have been considered but they are moot in view of new grounds of rejection.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred A. Casca whose telephone number is (571) 272-7918. The examiner can normally be reached on Monday through Friday from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard, can be reached at (571) 272-7603. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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